

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as indicated hereafter. It is believed that the following amendments and additions add no new matter to the present application.

In the Title:

Please replace the title with the following new title:

**PIEZOELECTRIC ON SEMICONDUCTOR-ON-INSULATOR
MICROELECTROMECHANICAL RESONATORS**

In the Specification: [Use ~~strikethrough~~ for deleted matter (or double square brackets “[[]]” if the strikethrough is not easily perceivable, *i.e.*, “4” or a punctuation mark) and underlined for added matter.]

Please amend paragraph [0002] starting on p. 1, as follows:

This application is related to copending U.S Utility patent application entitled “Capacitive Resonators and Methods of Fabrication,” ~~docket Ser. No. 62020.1440~~ 10/632,176, filed on the same date.

Please amend paragraph [0004] starting on p. 1, as follows:

The present invention is generally related to MEMS (micro-electro-mechanical systems) technology, and, more particularly, is related to piezoelectric resonators ~~and methods of fabricating the same.~~

Please amend paragraph [0009] starting on p. 2, as follows:

Embodiments of the present invention provide [[a]] piezoelectric resonators and ~~methods of fabricating the same.~~

Please amend paragraph [0010] starting on p. 2, as follows:

Briefly described, one embodiment of the piezoelectric resonator, among others, includes a resonating member having a bi-directionally adjustable resonance frequency, the resonating member including a semiconductor material of a semiconductor-on-insulator wafer, the semiconductor-on-insulator wafer including an oxide layer adjacent to the semiconductor material and a handle layer adjacent to the oxide layer, the oxide layer disposed between the handle layer and the semiconductor material, an electrode, and a piezoelectric material disposed between the semiconductor material and the electrode, and a capacitor created by the semiconductor material and the handle layer separated by an air gap formed out of the oxide layer, wherein the capacitor is configured to receive a direct current voltage that adjusts the resonance frequency of the resonating member.

Please amend paragraph [0011] starting on p. 3, as follows:

~~The present invention can also be viewed as providing methods for fabricating a piezoelectric resonator from a semiconductor on insulator substrate. In this regard, one embodiment of such a method, among others, can be broadly summarized by the following steps: forming trenches in a semiconductor layer of the semiconductor on insulator substrate; removing an oxide layer from the semiconductor on insulator~~

~~substrate; applying a piezoelectric material to the semiconductor layer; and providing an electrode to the piezoelectric material.~~

In the Abstract: [Use ~~striketrough~~ for deleted matter and underlined for added matter.]

Please replace the pending abstract with the newly-submitted abstract attached herewith on a separate sheet.